

Table A - 1. Inventory of Geographic Information System Data Sources with Potential Application for the CALFED Bay-Delta Program Tier 1 EIR/EIS

Data Category	Resource Topic	Organization	Program	Staff contact	Geographic coverage	Data type	Date(s) of record	Nominal mapping scale	Software platform	Comments	On internet?
Habitats	Eelgrass beds	California State Lands Commission	NMFS Report		San Francisco Bay	polygon	1992	1:24,000	ARC/INFO		Y
	Shallow water fish habitat	California State Lands Commission			San Francisco/San Pablo/Honker Bays	polygon	1993	1:80,000	ARC/INFO		Y
	Natural communities - Delta	DWR Central District Delta GIS Program	Delta Levees Subventions Program (SB34)	Kent Nelson	Legal Delta	polygon	various	1:24,000	Geo/SQL		N
	Habitat mitigation areas - Delta	DWR Central District Delta GIS Program	Delta Levees Subventions Program (SB34)	Kent Nelson	Legal Delta	polygon/line	various	1:24,000	Geo/SQL		N
	Levee habitat types - Delta	Harding Lawson Associates	Delta Levees Subventions Program (SB34)		Legal Delta	polygon	1991	1:1,000		privately held, may be available for a fee	N
	Wetlands - Bay/Delta	CEDR, UC Berkeley	San Francisco Bay/Delta Geodatabase	Howard Foster	Bay/Delta (by 7.5' quad, incomplete)	raster	1985	1:24,000	GRASS		view only
	Wetlands - North Delta	DWR Delta Planning Branch	North Delta Program	Ray McDowell	North Delta	raster, polygon	1991, 1992	1:9,600	GRASS, ARC/INFO		N
	Bay lands (mudflats, tidal marsh, diked baylands, riparian)	San Francisco Estuary Institute		Ted Daum	Bay / Delta downstream from Broad Slough	polygon	1985 (NW1 base)	1:24,000	ARC/INFO		N
	Seasonal wetlands - North Bay	San Francisco Estuary Institute	SF Bay Area Ecosystem Goals Project	Ted Daum	North Bay (Carquinez Straight - San Rafael Bridge)	polygon	1985	1:12,000	ARC/INFO		N
	Wetlands - Yolo Basin	Jones & Stokes Associates	Central Valley Habitat Joint Venture	Bruce Boyd	Yolo Basin	polygon	various	1:24,000	ARC/INFO		N
	Wetlands - Central Valley	DFG	Central Valley Wetland Mapping Project	Kari Lewis	Central Valley	polygon	various	1:100,000			N
	Wetlands - California	USFWS	National Wetland Inventory		California (by 7.5'quad, incomplete)	polygon	various	1:24,000	ARC/INFO		Y (DLGs)
	Special-status natural communities	DFG Natural Heritage Division	California Natural Diversity Data Base	Patrick Gaul	California	region, point	various	1:24,000	ARC/INFO	no public distribution	N
	Native vegetation - Stone Lakes Study Area	Bureau of Reclamation	Stone Lakes Wildlife Refuge Feasibility Study	Chuck Johnson	Southwestern Sacramento County	polygon		1:48,000			N
Historic habitats	Historic tidal wetlands	CEDR, UC Berkeley	San Francisco Bay/Delta Geodatabase	Howard Foster	12 Bay - Delta counties	raster	1851-1897	1:125,000	GRASS		view only
	Historic vegetation - Yolo Basin	Jones & Stokes Associates	Central Valley Habitat Joint Venture	Bruce Boyd	Yolo Basin	polygon	various	1:24,000	ARC/INFO		N
	Historic riparian habitat - Upper Sacramento River	DWR Northern District	SB 1086	Stacey Cepello	Sacramento River from Verona to Keswick	polygon			Geo/SQL		N
Species habitats	American shad habitat	California State Lands Commission			San Pablo/Suisun Bay	polygon	1992	1:80,000	ARC/INFO		Y
	Young chinook salmon habitat	California State Lands Commission			South San Pablo Bay	polygon	1992	1:80,000 and 1:24,000	ARC/INFO		Y
	Potential clapper rail habitat	California State Lands Commission			San Francisco Bay Estuary	polygon	1979	1:24,000	ARC/INFO		Y
Species occurrences	Delta special status species	DWR Central District Delta GIS Program	Delta Levees Subventions Program (SB34)	Kent Nelson	Legal Delta	point	various	1:24,000	Geo/SQL		N
	Special-status animal and plant species	DFG Natural Heritage Division	California Natural Diversity Data Base	Patrick Gaul	California	region/point	various	1:24,000	ARC/INFO	no public distribution	N
	Neomysis - zooplankton (and physical parameters)	DFG (DWR)	IESP	Lee Mecum	San Pablo Bay - Delta (San Pablo Bay - Hood - Stockton)	points	1972 - present	N/A (50 points)	currently not in GIS, can be implemented		N
	Salmon smolts and juveniles (and physical parameters)	USFWS (DFG)	IESP	Pat Brandes/ Spencer Hovekamp	Delta - Sacramento River (Benicia - Princeton - Mossdale)	points	1991 - present (portions started in 1978)	N/A (40 points)	currently not in GIS, can be implemented		N
	Striped bass (eggs, larvae, adults)	DFG	IESP	Lee Miller	San Pablo Bay - Delta (San Pablo Bay - Rio Vista - Stockton)	points	1959 (summer adults) 1968 (eggs, larvae) 1967 (winter adults) - present	N/A (147 - 190 points)	currently not in GIS, can be implemented		N

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Attachment 1

Table A-1. Continued

Land use	Delta smelt	DFG, DWR, UC DAVIS, USFWS, USBR	IESP	Geir Aasen, Dale	San Pablo Bay - Delta (San Pablo Bay - Knights Landing - Tracy, Byron)	points	1992 - present (portions from 1959)	N/A (174 points)	portions in GIS		N
	Fish and crustaceans	DFG	IESP (Delta Outflow/San Francisco Bay Study)	Kathy Hleb	Bay - Delta (South Bay - Threemile Slough - Antioch Bridge)	points	1980 - present	N/A (85 points)	currently not in GIS, can be implemented		N
	Entrainment of eggs, larvae and fish (+ physical parameters)	DFG, DWR	IESP (Delta Entrainment and Delta Agricultural Diversion Evaluation)	Stephani Spaar	Delta	points	1985 - present	N/A (12 points)	currently not in GIS, can be implemented		N
	Delta Canal Service Areas	CEDR, UC Berkeley	San Francisco Bay/Delta Geodatabase	Howard Foster	12 Bay - Delta counties	raster	1987	1:100,000	GRASS		view only
	County General Plans	CEDR, UC Berkeley	San Francisco Bay/Delta Geodatabase	Howard Foster	12 Bay - Delta counties	raster	1980-1990	1:100,000	GRASS		view only
	Farmland (according to importance)	Department of Conservation	Farmland Mapping and Monitoring Program	Greg Posely	Bay and Delta Counties and most of the Central Valley	polygon	1992, preliminary 1994 data may be available in Spring	1:24,000	Intergraph		N
	Crop types - Delta	DWR Statewide Planning	Crop Mapping Program	Tom Hawkins	Legal Delta	polygon	1991	1:24,000	Geo/SQL		N
	Crop types - Central Valley	DWR Statewide Planning	Crop Mapping Program	Tom Hawkins	Most of Central Valley by county	polygon	Solano Co. 1994, Yolo Co. 1989, Sacramento Co. 1993, San Joaquin 1988, Others at	1:24,000	Geo/SQL		N
	Delta levee maintenance information	DWR Central District Delta GIS Program	Delta Levees Subventions Program (SB34)	Kent Nelson	Legal Delta	polygon/line	various	1:24,000	Geo/SQL		N
	Land use - Stone Lakes Study Area	Bureau of Reclamation	Stone Lakes Wildlife Refuge Feasibility Study	Chuck Johnson	Southwestern Sacramento County	polygon		1:48,000			N
Infrastructure	Property ownership - Upper Sacramento River	DWR Northern District	SB 1086	Stacey Cepello	Sacramento River from Verona to Keswick	polygon			Geo/SQL		N
	Public lands (ownership)	Teale Data Center		Pam Leonard	California	polygon	various	1:100,000	ARC/INFO		N
	Roads - California	Teale Data Center		Pam Leonard	California	line	various	1:100,000	ARC/INFO		N
Political boundaries	Railroads and transmission lines - California	Teale Data Center		Pam Leonard	California	line	various	1:100,000	ARC/INFO		N
	Reclamation districts (incl. levee miles) - Delta	DWR Central District Delta GIS Program	Delta Levees Subventions Program (SB34)	Kent Nelson	Legal Delta	polygon	various	1:24,000	Geo/SQL		N
	Statutory Defined Delta	Department of Conservation	Farmland Mapping and Monitoring Program	Greg Posely	Delta	polygon		1:24,000	Intergraph		N
Physical geography	Cities - California	Teale Data Center		Pam Leonard	California	line	1990	1:100,000	ARC/INFO		N
	Counties - California	Teale Data Center		Pam Leonard	California	line	1990	1:100,000	ARC/INFO		N
	Elevation (1 m intervals) - Bay/Delta	CEDR, UC Berkeley	San Francisco Bay/Delta Geodatabase	Howard Foster	12 Bay - Delta counties	raster		1:250,000DEMS	GRASS		view only
	Lands below 1 foot elevation contour - Delta	CEDR, UC Berkeley	San Francisco Bay/Delta Geodatabase	Howard Foster	12 Bay - Delta counties	raster	1987	1:100,000	GRASS		view only
	Basins - Bay/Delta	CEDR, UC Berkeley	San Francisco Bay/Delta Geodatabase	Howard Foster	12 Bay - Delta counties	raster	1986 (base:1978)	1:100,000	GRASS		view only
	Watersheds - Bay/Delta	CEDR, UC Berkeley	San Francisco Bay/Delta Geodatabase	Howard Foster	12 Bay - Delta counties	raster	1986 (base:1978)	1:100,000	GRASS		view only
	Drainage specific watersheds - Bay/Delta	CEDR, UC Berkeley	San Francisco Bay/Delta Geodatabase	Howard Foster	12 Bay - Delta counties	raster	1975 & 1987 (base:1972)	1:500,000	GRASS		view only
	Islands - Delta	CEDR, UC Berkeley	San Francisco Bay/Delta Geodatabase	Howard Foster	12 Bay - Delta counties	raster	1987	1:800,000	GRASS		view only
	Watersheds - California	Teale Data Center	CALWATER	Pam Leonard	California	polygon	various	1:24,000	ARC/INFO		N
	Principal surface waters	CEDR, UC Berkeley	San Francisco Bay/Delta Geodatabase	Howard Foster	12 Bay - Delta counties	raster	1986 (base:1993)	1:24,000 & 1:52,000	GRASS		view only

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Geology - Bay	CEDR, UC Berkeley	San Francisco Bay/Delta Geodatabase	Howard Foster	12 Bay - Delta counties	raster	1972-1978	1:100,000	GRASS		view only
Natural Runoff Coefficient - Bay/Delta	CEDR, UC Berkeley	San Francisco Bay/Delta Geodatabase	Howard Foster	12 Bay - Delta counties	raster	1974	1:500,000	GRASS		view only
Precipitation (mean annual) - Bay/Delta	CEDR, UC Berkeley	San Francisco Bay/Delta Geodatabase	Howard Foster	12 Bay - Delta counties	raster	1971	1:500,000	GRASS		view only
Land forms - Yolo Basin	Jones & Stokes Associates	Central Valley Habitat Joint Venture	Bruce Boyd	Yolo Basin	polygon	various	1:24,000	ARC/INFO		N
Soil types - Yolo Basin	Jones & Stokes Associates	Central Valley Habitat Joint Venture	Bruce Boyd	Yolo Basin	polygon	various	1:24,000	ARC/INFO		N
Hydric Soils - Yolo Basin	Jones & Stokes Associates	Central Valley Habitat Joint Venture	Bruce Boyd	Yolo Basin	polygon	various	1:24,000	ARC/INFO		N
Historic Meanders - Upper Sacramento River	DWR Northern District	SB 1086	Stacey Cepello	Sacramento River from Verona to Keswick	polygon	1896 - 1992 (?)		Geo/SQL		N
Geology - Upper Sacramento River area	DWR Northern District	SB 1086	Stacey Cepello	Sacramento River from Verona to Keswick	polygon			Geo/SQL		N
Projected erosion rates - Upper Sacramento River	DWR Northern District	SB 1086	Stacey Cepello	Sacramento River from Verona to Keswick	polygon			Geo/SQL		N
Shoreline	State Lands Commission			California (including Bay/Delta downstream of Sherman Island)	line	various	1:24,000	ARC/INFO		Y
100-year flood plain - Upper Sacramento River	DWR Northern District	SB 1086	Stacey Cepello	Sacramento River from Verona to Keswick	polygon			Geo/SQL		N
100-year flood plain - Delta	DWR Delta Planning Branch	North Delta Program	Ray McDowell	North Delta	raster, polygon	1994	1:24,000	GRASS		N
Hydrography - nationwide	USEPA	Reach File 3	Cheryl Henly	Nationwide	line	various	1:100,000	ARC/INFO		N
Hydrography - California	Teale Data Center		Pam Leonard	California	line	various	1:100,000	ARC/INFO		N
Elevation (Digital Elevation Models) - California	Teale Data Center		Pam Leonard	California	points	various	approximately 72 m intervals	ARC/INFO		N
Trace substances	San Francisco Estuary Institute	Regional Monitoring Program for Trace Substances (RMP)	Ted Daum	Bay/Delta downstream from Sherman Island	point			ARC/INFO	sampling stations only - data with RMP	N
Bathymetry - Bay	San Francisco Estuary Institute		Ted Daum	Bay downstream from Carquinez Strait	points			ARC/INFO		N
Water quality - Bay/Delta	DWR, DFG, USBR	D-1485 Compliance Monitoring (IESP)	Karl Jacobs	San Pablo Bay - Delta (Point San Pablo - Green's Landing - Vernalis)	points	1971 - present	N/A (98 points)	currently not in GIS, can be implemented		in part
Hydrodynamics - Bay	USGS	IESP	Rick Oltmann	San Francisco Bay - Freeport - Old and Middle River	points	1984 - present (Bay) 1992 - present (Delta)	N/A (16 points)	currently not in GIS, can be implemented		N
Landsat Thematic Mapper image bands 3,4,5 - California	University of California, Santa Barbara	California Gap Analysis Program	David Stoms	California	raster	1991	1:250,000 (100 m cells)	BIP		N
Spotview image (panchromatic)	DWR, DFG, USBR and other state and federal agencies		Paul Veisze (DFG)	California	raster	1992-1994	1:24,000 (10 m cells)	BIL	no public distribution	N
Digital aerial photography - Delta and Suisun Marsh	UC Berkeley	UC Berkeley Digital Library Project	Ken Gardels	Delta (incomplete), Suisun Marsh	raster	1993	1:24,000	J-PEG	Color Infra Red (Delta), Color (Suisun Marsh)	Y
Archaeological sites - Delta	DWR Delta Planning Branch	North Delta Program	Ray McDowell	North Delta	points	1994	1:24,000	GRASS	no public distribution	N
Historic sites - Delta	DWR Delta Planning Branch	North Delta Program	Ray McDowell	North Delta	points	1994	1:24,000	GRASS	no public distribution	N

Imagery

Cultural resources